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ABSTRACT

This report focuses on the process of educating faculty about scholarly communication issues, based on interviews with 23 information professionals in 21 ARL (Association of Research Libraries) libraries. Most interviewees were ARL library directors. The summary of findings highlights the following areas: goals; understanding the culture; a basic approach--from information to advocacy; use of authoritative models; working with university groups; resolutions; segmentation, i.e., designing messages and programs for specific groups; use of data; successful strategies; what does not work; and organizing for faculty education. Reports from the field are included from Johns Hopkins University (Maryland), the University of Utah, Pennsylvania State University, the University of Arizona, the University of Virginia, the University of Connecticut, Indiana University, the University of California-Los Angeles, University of Kansas, Cornell University (New York), Massachusetts Institute of Technology, University of Wisconsin-Madison, North Carolina State University, University of Washington, Washington University (Missouri), and the University of Nebraska-Lincoln. A checklist for assessing faculty education programs is included. Selected resources, including documents from some of the institutions interviewed, are listed. (Contains 24 Internet resources.) (MES)

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Educating Faculty on Scholarly Communication Issues

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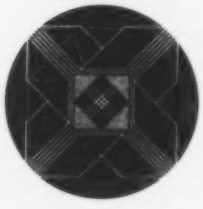

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Transforming Libraries *Issues and Innovations in*

Educating Faculty on Scholarly Communication Issues

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Introduction
Educating Faculty on Scholarly Communication Issues

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From the Editor

In this issue of Transforming Libraries, we focus on the process of educating faculty about scholarly communication issues, a topic of vital interest for academic libraries. The issue is the product of interviews with 23 information professionals in 21 ARL libraries. Most interviewees were ARL library directors.

As in previous issues of Transforming Libraries, the Reports from the Field section highlights individual libraries' noteworthy approaches to the featured topic. Also included are a summary of interview findings and a checklist for assessing a library's program in educating faculty.

Thanks are due to all of the interviewees who took time from busy schedules to talk about the issues and how their libraries are engaging those issues. Special thanks are offered to those who provided extremely helpful insight: Fred Heath (Texas A&M University), Barbara Von Wahlde (SUNY-Buffalo), Fred Lynden (Brown University), and Paula Kaufman (University of Tennessee).

—George J. Soete, Editor

Why Educating Faculty is Important

Everyone agrees: 15 years ago, we lived in a simpler world. Then library materials prices started increasing by double-digit percentages every year. At first, we looked for simple answers: the poor performance of the dollar against foreign currencies, the greed of certain publishers. These were library problems, and libraries had to figure out what to do about them. And, for a while, simple solutions worked for many libraries: cancel journals, get more money from parent organizations, reallocate funds from other functions.

Everyone agrees: We now live in a much more complex, rapidly changing world characterized by chronic problems. Double-digit price increases have not gone away. Though electronic formats have dazzled us, they have made only modest inroads as alternatives to print publication.

We understand that we are living in a complex culture in which we pay a heavy price for information resources at both the input and output stages: we support the scholars who create the resources, we give away the resources, and then we buy them back. It is a culture in which there are deeply embedded values; everyone agrees that quality is critically important, but it is still quantity of research that attracts notice—helps faculty to get and retain jobs.

The stakes are very high. One ARL director summed it up: "We have framed the question in the wrong way. We must reframe the question. It's not about the cost of content. It's about whether universities can continue to conduct quality teaching and research without having control over their output."

The passage of time has helped us step back and see the problems of scholarly communication as long-range problems that demand sustained, creative solutions—to see the systemic aspects of the problem rather than merely the symptoms. It is not about getting through the next budget cycle, not about any specific cancellation project, though these loom large in the everyday lives of libraries. It is about making fundamental systemic changes in the scholarly communication process, a beleaguered process that belongs to the entire scholarly communication community. To solve the chronic problems, faculty must be actively involved. They must understand that the problems are *their* problems, which they must solve through their actions and their behavioral changes. Libraries can provide advice and information, but ultimately the faculty hold the key.

Summary of Findings

"Reframing the question" is the key theme of the interviews in this issue. In their faculty education programs, ARL libraries are moving away from passivity and reaction toward engagement and advocacy. The signs of change are abundant. Scholarly communication librarians are being assigned to coordinate faculty education programs. Faculty senates are passing resolutions asking faculty to alter their behavior related to intellectual property and peer review. Educational efforts are being managed by the faculty, in partnership with the library. Front-line library staff are being equipped with the information they need to help faculty understand the issues. Libraries are using market segmentation methods to get their message out. Alternative models are being explored.

What are the Goals?

Efforts to educate faculty about scholarly communication issues will, of course, vary from setting to setting. In any environment, the goals typically range from information to advocacy. Following is a menu of goals that were discovered during the preparation of this issue:

- **To promote understanding of library policies, procedures, and actions.** For example, libraries still need to gain faculty support of cancellation projects.
- **To increase informed participation in library-initiated actions.** Beyond understanding, libraries need faculty help in implementing

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projects; for example, faculty are the best advisors on the resources they need to have at hand and what they can access through alternative modes (e.g., document delivery).

- **To bring about a shift in the locus of the problem.** It is not merely a library problem; it is a scholarly communication problem, and faculty—not libraries—are the key influences in the scholarly communication process.
- **To foster consideration of changes that will enhance the availability of scholarly resources.** Changes include such possibilities as separating the scholarly communication process from the promotion and tenure process, retaining copyright, and focusing on the quality and impact of publications rather than on their quantity.
- **To assist in the implementation of these changes.** Libraries can suggest models, point to success stories.

Understanding the Culture

Interviewees stressed the importance of understanding their local cultures and subcultures in mounting an effective faculty education program. They described a great range of cultures: those in which data are all-important; those in which faculty do not attend meetings; those in which there is serious mistrust of administration; those in which some stakeholders (e.g., humanists) feel disadvantaged; those in which experimentation and entrepreneurship are strong—or weak—values; and those in which innovation and impact are valued more—or less—than quantity of publication.

They also indicated the need to understand the culture of scholarly communication in general and in the various disciplines. One factor we do not always understand in libraries is the close relationship that some faculty, particularly editorial board members, have with publishers—relationships that might simply be based on benefits, such as free trips to Europe, but often have been forged into long-time professional friendships. In such a cultural milieu, it is impolitic—not to mention imprecise—to demonize publishers. Moreover, one of the key discoveries for some directors has been that "scholarly communication" means very different things to faculty in different disciplines and that understanding these discipline differences is key in mounting an educational program. You simply won't approach the Shakespeare scholar in the same way as the microbiologist.

Faculty are also typically arrayed on a "sophistication continuum." Journal editors can be quite sophisticated about scholarly communication processes, including the economics of publishing. But interviewees still encounter relatively naive input from faculty, including offers to give their individual (less expensive) journal issues to the library.

Basic Approach: From Information to Advocacy

Basic approaches to educating the faculty range from providing information when asked to "getting in their face," as one director put it, with most libraries remaining on the information-providing side. In part, the preference

for information provision seems to relate to issues of readiness: many front-line librarians feel uncomfortable with advocacy, but many directors also feel that "stridency" does not work with faculty. In several libraries, a division of roles allows subject librarians to provide information, leaving the advocacy to the administrators. Most felt that, at this point, the best overall strategy was not to push an agenda but to offer the library's help in framing the questions that would lead to resolution of the chronic problems of scholarly communication.

Use of Authoritative Models

Many libraries are using alternative models to stimulate awareness and discussion of scholarly communication issues. Two of the most used models have been proposed by respected faculty/administrators, David E. Shulenburger, Provost at the University of Kansas, and Charles E. Phelps, Provost at the University of Rochester. Shulenburger's model would require that a portion of the copyright for each manuscript accepted for publication by a scholarly journal would "be retained for inclusion in a single, publicly accessible repository after a lag following publication in the journal." Phelps urges decoupling of the certification component of the present scholarly communication system from the actual publication component, thus creating more competition in the scholarly publishing arena.

The power of authoritative models has been affirmed by the interviewed library directors:

- such models come from faculty, not from libraries or library associations;
- they enable faculty to visualize and discuss alternatives; and
- they are sensitive to faculty needs and to the nuances of different disciplines.

Working with University Groups

While some libraries reported success in working with larger groups (e.g., the faculty senate, special faculty convocations), many suggested that working with individuals and small groups was the most effective approach. Nonetheless, several libraries have found working with the faculty senate, the faculty library committee, and other venues to be successful approaches. In some cases, introducing scholarly communication on the senate agenda led to the passage of resolutions, which, while typically not binding, at least called the issues to the attention of the faculty. Library advisory groups have sometimes been effective focal points for the examination of issues; some libraries have used them virtually as focus groups to help the library understand the key differences among the disciplines, key characteristics of the organization's culture, issues to focus on, and methods to use. Some directors use nearly every opportunity to introduce scholarly communication issues into discussions; others have found that focusing on more influential groups (e.g., the council of deans) is more effective. Some have learned through experience that one-on-one contact is most effective. One director articulated a method

for combining the large group and individual approaches: large groups are useful in getting the message out and establishing an issues framework, but small groups and individuals are where the messages can be delivered most forcefully.

Resolutions

As noted earlier, some libraries have focused educational efforts on resolutions and other formal actions, typically issued by the faculty senate or a similar body. Examples of resolutions include:

- support of programs like SPARC (the Scholarly Publishing and Academic Resources Coalition);
- recommended guidelines for cancellation projects;
- recommendations to faculty that they retain all or part of the rights to their intellectual work; and
- revised promotion and tenure guidelines supporting new approaches to publication.

Since resolutions are publicized and debated, they are an effective means of delivering messages to the entire university community.

Segmentation

Many libraries deliberately use segmentation in their education efforts, designing messages and programs for specific groups. There seem to be four bases for segmentation:

- **According to where the most expensive resources are:** Many libraries concentrate on faculty in the sciences, technology, and medical areas because these are the areas where most of their collections dollars go.
- **According to where the most influential people are:** Some libraries focus on journal editors and/or key administrators on the hypothesis that they are the change-makers.
- **According to vociferousness:** Some libraries concentrate on groups that complain of being especially short-changed in the scholarly communication process; frequently, these are humanities faculty.
- **According to degree of anticipated long-range benefit:** Junior faculty and graduate students are the best examples of this sort of program focus. The latter were specially mentioned by several interviewees.

Use of Data

Most libraries use data in their educational efforts but, for some, the emphasis is on data that are readily available. Obviously, journal price information, as well as price increase statistics, are essential in any educational effort. But many libraries report that using data about cost increases to gain sympathy no longer works. What does work, some directors indicate, is information about publisher profits; in fact, several directors reported shocked reactions from faculty confronted with such information. Some libraries report using data developed by others and drawing inferences appropriately. Often cited are the statistics provided by

Cornell and Wisconsin. These data are typically presented in a framework that enables objective comparisons among journals: cost per page and/or cost per 1,000 characters. Sometimes, Institute for Scientific Information (ISI) impact ratings are reported as well; these indicate how much impact a journal has within its discipline by computing the number of times it has been cited subsequent to publication.

Though most libraries have gathered statistics about journal use, several said that this data gathering has been sporadic. Moreover, some libraries found that the labor intensity of data collection was not commensurate with the data's impact on faculty. Nonetheless, a few libraries have made use data a cornerstone of their educational efforts. Such data are most effectively presented as cost-per-use statistics. Thus, a journal's subscription cost is divided by the number of recorded uses during a year. This computation is sometimes followed by the designation of a cutoff point (for one library, the cutoff is $200 per use), above which the title is considered for cancellation. Obviously, gathering journal use data is an expensive undertaking that must be carefully organized. As most journals are used in-house, processes must be designed and implemented for measuring in-house use (e.g., scanning bar codes on journals as they are reshelved). For these libraries, however, the power of data outweighs the expense. Data get the faculty's attention and open up discussion of the issues.

Successful Strategies

Interviewees were asked what worked especially well in their educational efforts. In part, their responses were affected by the cultures in which they operated.

- **Keeping the Scale Small.** Many prefer one-on-one or small group interactions to larger, more formalized settings. Such venues provide time and space for exploration of the issues. Buying lunch for the faculty was frequently mentioned.
- **Using Authority, External Expertise.** Some suggested that faculty do not pay attention to scholarly communication issues until they appear in the *Chronicle of Higher Education* or are articulated by an influential person (e.g., a respected provost from another campus).
- **Taking Advantage of a Crisis—or Not.** A few directors suggested that faculty pay closer attention during a crisis—that as long as the university provides adequate support for maintaining journal subscriptions, it is difficult to make the issues vivid for them. Others suggested that it is much easier to talk about the long-range issues in a non-crisis atmosphere.
- **Sponsoring Colloquia/Conferences.** Such events help establish a framework for the issues, but in some cultures they are poorly attended.
- **Keeping it Relevant, Simple.** Several interviewees suggested that library messages must relate to the practical concerns of scholars and could not be presented in library or legal jargon.
- **Acknowledging Disciplinary Differences.** Several suggested that

it is important to acknowledge differences among the disciplines by working with them as segmented groups.

- **Being a Resource, Developing Local Expertise.** Having a person or persons in the library who can respond to questions about copyright, intellectual property, etc. is seen as effective.
- **Staying Open/Asking Faculty to Shape the Questions.** Several directors talked about the need to listen and to keep an open mind in order to avoid predetermining the outcome of discussions.
- **Remaining Patient.** Several spoke of educating faculty as they might speak of development efforts, which involve patient and sometimes slow cultivation of donors.
- **Using Data.** Faculty today seem more immune to subjective arguments, such as, "The library is the heart of the university." They want to see the data and interpret them for themselves. Especially effective are statistics about publisher profits.
- **Focusing on Positive Alternatives.** Directors spoke of the value of developing and focusing on quality alternatives to paper acquisition—what is to be gained rather than what might be lost. One library offers free document delivery of articles from any journals that they have cancelled.

What Does Not Work

There was surprising agreement on what does not work very well in educating faculty about scholarly communication issues:

- **Complaining about Money.** Faculty are no longer impressed by the library's economic woes or general information about inflation.
- **Shrillness, Stridency**. If they are engaged in the issues, faculty want a serious, objective discussion.
- **The Quantity vs. Quality Theme.** This approach tests the patience of many faculty members. Though they might agree in principal that the quality and impact of publications are more important than quantity, they also know that quantity is still valued, and they will not compromise their careers or the careers of their students by ignoring quantitative measures of worth.
- **Written Material.** However beautifully written, text is not generally as effective as personal contact. It is best used as background material—a framework for an in-person discussion.
- **Lecturing.** Lecturing to the faculty about scholarly communication issues is relatively ineffective; a preferred technique, recommends one director, is to put forward some key questions, then back off and let the faculty talk.

Organizing for Faculty Education

In more and more ARL libraries, scholarly communication has become a major focus. The trend is clearly toward organizing the educational effort. This is most visible in the appointment of scholarly communication librarians in several libraries or the assignment of scholarly communication as a major job responsibility for a library manager/coordinator. Such

appointments and assignments have been made at Brown, Connecticut, Arizona, Tennessee, Cornell, Delaware, North Carolina State, Virginia, and Washington—almost half of the libraries participating in these interviews. Moreover, two interviewees suggested that they were contemplating such an addition to their staff. Connecticut and North Carolina State are of particular interest in this group: the former has hired a marketing and communication specialist to help with the education effort; the latter has hired an attorney in the position of Scholarly Communication Librarian.

Much of the one-on-one work in educating faculty about scholarly communication issues would logically fall to individual librarians—bibliographers, liaisons, subject specialists, etc. Most directors thought that their librarians were aware of expectations to keep faculty informed about the issues and were regularly engaging them in discussions. Most also conceded that these roles were more comfortable for some librarians than for others. Only one library, University of Utah, reported developing performance expectations for librarians related to educating faculty about scholarly communication issues.

Reports from the Field

The first seven reports presented below focus on work with university groups. At Johns Hopkins University, Jim Neal opens a dialog on scholarly communication with virtually every group with which he comes into contact. Sarah Michalak (University of Utah) and Nancy Eaton (Pennsylvania State University) have had successful experiences in working with their faculty senates, as has Carrie Russell (University of Arizona) in working with a major senate committee. Library advisory committees have been effective venues for the University of Virginia and the University of Connecticut Libraries. And Suzanne Thorin (Indiana University) has learned much from her interactions on the President's Committee on Scholarly Communication.

Hopkins Connects in Multiple Ways

James Neal, Director of Johns Hopkins University Libraries, has used every available means of connecting with the Libraries' environment on scholarly communication issues. Even a partial list of connections suggests that he and his staff have been very busy indeed.

Key to their effort is the Faculty Advisory Committee for the Libraries, which has been very helpful in paving the way for educational undertakings. Neal also communicates with the community in campus publications whenever he can. Further, he has met with all the department chairs at Hopkins, and, as a result of these meetings, has met with many departmental faculty.

Neal works closely with a number of key University committees, both as a member and as a guest presenter. These include the Intellectual Property Policy Committee; the University's technology policy committee, the Information Systems Coordinating Council; and the Council of Deans. He has also worked in an educational mode with the campus Government Relations Office staff, the University Counsel's office, and the Board of Trustees (both the Educational Policy Committee and the Information Technology Working Group).

Segmentation efforts have included meetings with all the journal editors at Hopkins, occasionally involving such guests as Duane Webster,

ARL Executive Director. Furthermore, Neal has focused on humanities department heads, as he feels that humanists and scientists often are talking about very different things when they discuss scholarly communication systems.

Neal takes his message to some unusual groups, as well. Though the Friends of the Library are principally interested in book collections, he shares scholarly communication issues with them and they react with curiosity and interest. He works with alumni and friends groups around the country, often at university-sponsored colloquia. In addition, Neal is a frequent presenter at university-sponsored convocations on the Baltimore campus.

Within the Libraries, Neal wants to be sure that everyone who interacts with users has at least a basic understanding of scholarly communication issues and can contribute to the educational effort. Thus, he regularly briefs his management team on scholarly communication issues, as he feels they need to educate their staffs. All-staff exchanges, held monthly, provide an additional forum for occasional discussions of scholarly communication. Neal makes sure that important reading material is routed among library staff, as well.

In the process of exploiting these communication venues, Neal has learned some valuable lessons. In a word, small is better than large. He has learned that calling a large university convocation on the subject of scholarly communication results in disappointingly low attendance (it is a culture, he says, where people avoid meetings if they can). An even less successful tactic is sending reading materials in advance of a meeting and expecting faculty to read them: he always carries such material with him. Neal has learned to minimize the didactic—lecturing does not work. Instead, he advocates putting forth questions faculty can engage and then stepping back and letting them talk. Most of all, Neal has learned to keep the content non-legalistic and non-conceptual, remaining instead in a practical, problem-solving mode. The venue that works best is lunch, particularly if the library is buying.

So active are the Libraries in their educational programs for faculty that Neal is adding to his staff a new Assistant University Librarian for External Relations. Among a host of other duties, this person will be responsible for working with Neal to "expand contacts with university faculty and administrators on important national information policy and scholarly publishing topics and on library collection and service improvement strategies."

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"Outside the Box": Utah Works on the Local, State, and National Levels

Recently, Sarah Michalak, Director of the University of Utah Library, made the front page of the student newspaper with the provocative headline, "Library Director Challenges Faculty." For Michalak, though the language was a bit dramatic, the message was a sweet one: she had just addressed the

Faculty Senate on behalf of the Library Policy Advisory Committee, calling on the faculty to become engaged in the difficult scholarly communication issues faced by them and by the Library. This was also an occasion for proposal of an important Senate resolution, which reads:

> The University of Utah faculty [will] critically examine the publishing costs and copyright practices within their disciplines and sub-fields, assess journals and other modes of communication with respect to criteria for retention, promotion, and tenure within departments and colleges, and support the libraries' efforts to foster responsible publishing pricing models.

The resolution was accompanied by a list of specific actions that faculty might take:

- Become informed about the problems.
- Question copyright agreements before signing and communicate areas of disagreement.
- Know the pricing history of the journals to which you submit and communicate disagreement.
- Resist selling association journals to publishers with predatory pricing habits.
- Within tenure reviews, consider favorably works of excellence published in alternative formats such as electronic journals.
- Encourage measurements of quality as opposed to those of quantity.
- Help your librarian selector identify worthy, lower priced holdings to replace highly expensive titles.

But this was only the most recent of Michalak's encounters on behalf of scholarly communication issues. In fact, she uses every opportunity at hand to communicate key messages about the issues, not only to the University faculty, but also to the Utah State Legislature and other key actors in the Utah information community. She speaks of a "statewide web of communication about SPARC principles and the serials pricing problem" that has netted $5 million in additional state funding for Utah institutions of higher education within the last four years. The funding has been granted in recognition of a combination of the institutions' leveraging of national activities, such as SPARC, and managing local and state collections and services in order to provide authoritative scholarly information quickly and in a more affordable fashion.

"We are beginning to think of money spent on serials price increases as completely wasted," says Michalak, "and we are trying to redirect that money to support areas of strength where in-depth collecting can make a real difference both for the state and for the national research library agenda."

Her efforts began with testimony three years ago at the Utah Legislature's joint Higher Education Appropriations Committee, during which she was challenged by a legislator to "go national"—to seek ways in which research libraries could join together to fight predatory pricing practices. This challenge led to her work with SPARC. Since then, in

addition to hours of intensive one-on-one work with legislators, she has addressed the Utah Board of Regents.

Michalak feels that part of the success of the Utah effort lies in the strength of the State consortium. She characterizes the special funding received so far from the state as a "bridge effort," intended to help consortial members try diverse and creative strategies for mitigating the serials price problem, including widespread use of document delivery and rethinking the concept of on-site core collections. Part of the consortial effort has been to educate librarians throughout the higher education system, even in libraries where serials pricing is not such a critical problem.

Michalak characterizes Utah faculty and administrators as engaged and interested in scholarly communication issues. The President and Senior Vice-President are both knowledgeable advocates. The Senate Executive Committee has invited her twice for conversations on scholarly communication issues, and a faculty forum was well-attended and productive. The faculty forum included cross-disciplinary break-out sessions in which faculty and librarians discussed characteristics of serials publishing and pricing in their disciplines, and how the Library and the disciplines could work together to influence serials pricing and publishing patterns.

"Faculty members wrap their minds around these issues very rapidly," says Michalak. Months after such sessions, they approach her and say that they have continued to think about the issues; some report that they are conveying the messages at their association editorial meetings and in conversations with their journal's editorial boards.

But Michalak tempers optimism with realism. She understands that change of such magnitude must proceed deliberately, and the hard decisions will need to be made on the basis of the data that they are collecting on journal use. Modest recent changes in the Library's allocation system include cutting the bindery budget by $25,000 in anticipation of journal cancellations and a deliberate shift toward access rather than ownership. This shift will also involve reallocating moderate amounts of collections money to staffing of access operations—in other words, trying new approaches, thinking "outside the box."

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Penn State Works through Senate Actions

Though the Pennsylvania State University Libraries employ a multilevel approach to educating faculty about scholarly communication issues, one strategy has been particularly successful: faculty senate actions. Two important actions have been implemented recently, according to Dean of University Libraries Nancy Eaton.

The first action is a recommended amendment to the Administrative Guidelines for Promotion and Tenure that electronic publications be treated

the same as publications that appear in print; only non-reviewed publications posted by the faculty members themselves will not be considered. Though it might strike some as common sense, this official change in the promotion and tenure system is a clear invitation to faculty to seek alternative, less costly methods of sharing their research output.

The second action is a resolution supporting SPARC. Embedded in this resolution is a brief lesson in scholarly communication issues; key passages are repeated here, omitting the preceding *whereas*'s:

- Faculty and students' ability to conduct their research and prepare for their classes has been adversely affected by the rapid increase in the cost of journals.
- Increase in the cost of these journals seems to be unrelated to either the inflation of other goods and services or increases in the quality of these resources.
- Electronic journals and other electronic scholarly communication seem to be an increasingly effective and efficient scholarly communication tool.
- ARL, the AAU, and SPARC seek to promote competition in the marketplace through a variety of programs.
- SPARC aims to foster an expanded marketplace, reduce the price of journals, ensure fair use of educational and library uses of electronic resources, and apply new technologies to improve the process of scholarly communication and reduce the cost of production and distribution.
- The Senate commends and assists the efforts of ARL and SPARC and encourages scholarly and professional societies to promote competition in scholarly communication.

Another resolution is in the works, as well. This one proposes to help junior faculty find money to publish their work in cases where lack of money is the key obstacle. Such support holds promise for coaxing faculty publication toward alternative venues.

Senate resolutions, as many interviewed for this issue of Transforming Libraries suggested, do not in themselves change academic cultures. Yet a resolution such as this does provide a backdrop for further discussion, and it furnishes a number of logically connected talking points for direct interfaces with faculty.

Eaton characterizes the Penn State environment as one of "movers and shakers"—highly influential leaders in the area of scholarly communication and intellectual property rights, including President Graham Spanier, who is very active in higher education circles regarding these topics. One measure of campus interest has been a successful information series called "Forensics" that are held by the faculty senate. Two Forensics last year focused on journal prices and scholarly communication. A second avenue for education has been the Committee on Institutional Cooperation (CIC) Fellows Program, which holds seminars for the administrative fellows selected from each CIC institution for their leadership potential. Last year, one of the CIC programs presented was on intellectual property management, and received outstanding ratings from those in attendance.

At one level, consciousness of developments like SPARC seems to be increasing at a satisfactory rate. The Libraries continue to find, however, that many faculty fail to understand some of the basics of scholarly communication—for example, that the Libraries pay more for their subscriptions than do individuals. Thus, though continual discussion of costs seems to turn faculty off, there are some basic economic realities that they need to understand.

Internally, Eaton depends on the Assistant Dean for Collections and a copyright committee to keep library staff updated on changes and procedures related to these issues. Soon coordination of this area will broaden to include licensing and will become a one-half-time professional assignment.

Externally, the President, Provost, and Vice Provost for Research and the Graduate School have appointed an intellectual property task force to update all University policies and procedures relating to intellectual property management.

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A Senate Committee and Lots of Luncheons in Arizona

At the time of these interviews, Carrie Russell was the Intellectual Property and Scholarly Communication Librarian at the University of Arizona Library. She was a member of a faculty Senate committee with the identical title: the Senate Committee on Intellectual Property and Scholarly Communication. This is not coincidental, as Arizona, under the leadership of University Librarian Carla Stoffle, has been active in educating faculty about both issues.

The small (seven- to nine-member) senate committee was requested by Stoffle and has become a linchpin of the Library's educational efforts. In its charge are four recommended outcomes:

- greater awareness among university community members about copyright issues;
- a channel for access to reports analyzing the costs of scholarly communication;
- creation of a plan for providing regular information to the university community about the implications of pending legislation affecting access to scholarly information; and
- submission of policies relating to alternative publishing opportunities and copyright issues to the Senate for its action.

At this point, most activity has focused on sharing information within the Committee, with the goal of laying a foundation for producing the recommended outcomes. Russell was working on a position paper for faculty Senate endorsement as one outcome of the Committee's work. The paper is scheduled to go to the Senate in the fall of 1999.

In the meantime, outside of the committee framework, the Library is building support for the ideas in the position paper by actively carrying messages to the deans and department chairs through a series of luncheons that include key persons from the Library. Each luncheon includes a presentation by Stoffle; the appropriate subject librarians provide discipline-specific information for these events and also attend them as resource people.

Arizona faces a few challenges in its educational efforts, said Russell. Faculty do not always believe they have power in the larger arena of scholarly communication. She used examples—especially those illustrating how individual scholars have been disadvantaged by the present economics of scholarly publication—to show that individuals can have an impact. Moreover, many faculty are wary of the quality versus quantity argument that is often advanced: that is, that scholarship needs to shift from a mode of valuing quantity of publication in the promotion and tenure process to valuing quality of publications and the extent of their impact on the profession. For many scholars, the culture of quantity is deeply ingrained, with some senior faculty asking why junior faculty would not have to meet the same standards (in quantitative terms) that they themselves had to meet. Arizona therefore downplays this particular message and focuses for the present on listening and especially on fostering understanding among the key actors, both in the Library and on the faculty.

One final discovery: Faculty are impressed by data from prestigious institutions (e.g., Cornell) or by ideas from provosts or presidents, as well as discipline-specific data from the Library.

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Virginia's Very Active University Library Committee

Library Advisory Committees are not always the most powerful vehicles for educating faculty. Much of their effectiveness seems to depend on whom they report to, who chairs them, and how actively the Library engages with them.

At the University of Virginia, the University Library Committee has been a pivotal force in the program to educate faculty about scholarly communication issues, according to Diane Parr Walker, Associate University Librarian for User Services. Current activities began with a visit to the Committee's meeting in the fall of 1998 by the Provost, to whom the Library and the Committee report. Responding to a letter from the

Committee, the Provost laid out the proposals of three provosts of other institutions: Steven Koonin of Cal Tech, Charles Phelps of the University of Rochester, and David Shulenburger of the University of Kansas. He then asked the Committee to consider these ideas and others that they may come across, and provide him with recommendations on how to address the problems in scholarly communication facing the University of Virginia.

Three potential actions have thus far stimulated discussion in the Committee:

- Encouragement of scholars to sign over their copyrights to publishers for only 90 days, then make all information available in an electronic archive.
- Encouragement of faculty to consider retaining their copyright to all scholarly products.
- Encouragement of universities and professional societies to explore separation of peer review and certification from the act of publishing an article. Once reviewed and accepted for publication in such a system, an article might be made available in either print or electronic formats.

Simultaneous with the Committee's discussion, the chair of the faculty senate launched a University-wide discussion series on how technology is changing teaching and research. At the suggestion of the chair of the University Library Committee, one of the discussion sessions focused on scholarly communication. Presentations by Charles Phelps, a member of the art history faculty, and University Librarian Karin Wittenborg spawned discussion of the problems posed by the current system of scholarly communication and carried the dialog into the university community.

Walker stresses that these ideas are only at the discussion stage. They indicate, however, a willingness on the part of the University to move from abstract discussion of the issues to consideration of real, consequent actions with real implications for faculty behavior. Whether these ideas move forward or not, the discussions around them will have been an important part of Virginia's effort to educate faculty about scholarly communication issues.

For Walker, it has been critically important to have such discussions arise from a true partnership between the Library and the faculty. It is essential that faculty hear from the Library, and vice versa. A measure of the Library's success, she feels, is that discussions of cancellations are much more informed on the faculty side than they were two years ago.

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Expanding the Iterative Process at Connecticut

Paul Kobulnicky is proud of the iterative process being used at the University of Connecticut to involve faculty in discussions of scholarly communication issues. The process started two years ago with the active

engagement of the Chancellor's Library Advisory Committee in a series of four thematic discussions. These discussions really functioned as focus group sessions with the faculty-dominated group. The four discussions, each two hours long, addressed the following themes:

- *Changes in the Mission of the University and the Impact on Library Collections.* The group explored the extent to which faculty believed research and teaching are changing, touching on such factors as the impact of distance learning, interdisciplinary work, technology transfer, and the growing importance of outreach and service.
- *Measures of Success.* The group addressed how success might be measured as we move from the classic collections model to a newer hybrid, focusing on access as a model for providing information resources.
- *Core Collections.* This program had to be offered twice, so stimulating were both the topic and the discussion. The focus was on what kind of collections had to be on site to support instructional and research programs. Many faculty held fast to the idea that the core had to include materials that would support research, however specialized, while recognizing the difficulty for the library in supporting this model. Kobulnicky was particularly happy with these discussions, as he believes that change occurs through the resolution of conflict.
- *The Political Economy of Information.* This session focused on the need for universities to become more knowledgeable and demanding consumers of scholarly communication. While faculty were aware of the problems, many were not comfortable with a move to market-savvy action.

Reactions to this approach were very positive. Faculty felt it was one of the best processes in which they had been involved. For them, the content was stimulating, the level of interest was high, and the answers were not predetermined. In fact, Kobulnicky typically approaches the faculty not with a packaged message, but with a call for help in shaping the questions that need to be asked and developing the policies that follow.

Out of these four discussion sessions came four summary documents, which were subsequently integrated into a philosophical document by the Library's Head of Collections Services, Richard Fyffe. This document, available at <http://www.lib.uconn.edu/cs/clac/>, has been used as background to further work with faculty at the programmatic level, where they are asked how the concepts in the paper might apply to teaching and research in their discipline.

Kobulnicky believes in engaging the faculty in frank ways, especially by calling to their attention some of the economic realities—for example, by confronting them with some of the more egregious examples of profits among commercial publishers. These data, he says, while shocking to the faculty, provide a catalyst for discussion. Ultimately, his goal is to challenge them to solve the problem; he has faith that intelligent people, once engaged and provided with full information, will take the right steps.

The need for the Libraries' liaisons to work effectively as advocates on

scholarly communication issues is critical in Kobulnicky's thinking. To meet that need, he recently hired a marketing and communications specialist, one of whose tasks will be to train liaisons in the skills they need to educate faculty about scholarly communication issues.

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Sharing Humanity at Indiana

"Through this educational process, I learned, along with committee members, the great differences among the disciplines with respect to scholarly communication. It was a privilege to be a part of intense faculty discussions during the process." Suzanne Thorin, Indiana University's Dean of Libraries, is describing a learning process engaged in by the 15 members of the President's Committee on Scholarly Communication. Organized into discipline groups, Committee members made presentations to others in the group, highlighting differences in scholarly communication in their fields.

An interim report issued by the group in December 1998 underscores some of these differences:

- Scientists depend on journal articles, rather than monographs, to report research results as rapidly as possible. Science journals have been particularly hard-hit by pricing practices during the last dozen years.
- Some humanities areas (e.g., history) are dependent on monographs, and monograph publication is an important step toward tenure and promotion. Though monograph prices have seen more moderate price increases, journal price increases have eaten into funds available for monographs.
- Business is dependent on journals and to a lesser extent on monographs and proceedings.
- Law is very different from other disciplines in that articles are not generally peer-reviewed, but are reviewed by the law students who edit the journals. Law journals are usually subsidized by the universities issuing them and are typically less expensive than many other journal types.

These differences were emphasized in library fund allocations:

	Serials	Monographs
Sciences	90%	10%
Social Sciences	73%	27%
Area Studies	41%	59%
Humanities	30%	70%

Though the differences might appear to be fairly obvious to seasoned librarians, it was important for Committee members to discover them before

embarking on action recommendations. Here are some of the group's preliminary conclusions:

- The issues related to scholarly communication vary widely by discipline; no single solution is likely to address all the problems successfully.
- Collective action, not action by individual libraries or universities, is needed to address scholarly communication problems—involvement from colleges and universities, scholarly and professional organizations, and organizations outside of academia.
- Access, though it brings with it some problems, must become a viable alternative to acquisition for meeting information needs.
- Journal prices are not merely a library problem. The University needs to partner with others (for example, the CIC) in establishing a process for identifying pricing and licensing practices which do not meet clearly specified, objective criteria, along with action plans related to such identification.

Thus, a major educational strategy at Indiana was to work with a representative committee as a focus group, to establish a structure in which they could learn from one another, and to use the lessons learned as input to future educational efforts. For Thorin, an important lesson was the willingness to have various points of view aired and to stay open to influence.

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The next two reports focus on segmentation efforts: UCLA's focus groups with journal editors and Kansas' work with graduate students.

UCLA Looks at the Issues from the Editors' Point of View

In November 1998, the University of California–Los Angeles Library held three focus group sessions with editors of scholarly journals. Two of the groups were drawn from the scientific disciplines and one from the humanities and social sciences. The results of these group sessions are being used as input into UCLA's faculty education activities and to inform planning for the California Digital Library.

The outcome of these sessions may be useful to other libraries but, perhaps more importantly, the methodology is one that holds promise for gathering valuable information in a short period of time on the views of major stakeholders on scholarly communication. Here are some key results:

Economic Issues

- All participants emphasized that scholarly societies rely on income from the sale of their journals. The importance of this income cannot

be ignored as solutions to high journal costs are sought.
- Scientists felt that impact models of journal assessment (e.g., the ISI impact factor) should form the basis for journal cancellations.

Copyright

- Journal editors have little or no influence over copyright policies.
- Faculty need guidance on copyright issues—what rights they should keep, what rights should be transferred to the publishers.

Quality vs. Quantity: Implications for Peer Review

- Scientists need fewer journals but of better quality.
- Academic peer review processes should emphasize the importance of quality over quantity.
- Some faculty are ambivalent about the quality issue, suggesting that a certain amount of "noise" is tolerable in the system—that, in fact, it can stimulate creative thinking.
- In the digital environment, poor quality scholarship is more likely to be ignored.

Alternative Models for Scholarly Communication

- Preprint and e-print services are not universally valued; this varies among the disciplines.
- Already, the new generation of scholars is using electronic journals heavily.
- A general perception is that digital publishing compromises quality; digital publishing needs to establish "aggressive quality indicators" (institutions, editors, contributors).
- Adding functionality to digital publication (e.g., links) adds strong value.

Specific Initiatives for the University of California

- Extend consortial activities beyond the state.
- Mimic consortia found in the health industry.
- Establish a California preprint server.
- Increase the visibility of the California Digital Library—for example, through its creation of a new electronic journal.

The power of the focus group method can be seen in this summary. Editors were both focused and engaged, and the quality of the information and ideas was high.

The focus groups have been just one strategy in UCLA's overall plan of educating faculty on scholarly communication issues. University Librarian Gloria Werner cites UCLA's commitment to working toward long-term goals, much as in development work. Providing information to faculty, soliciting input, and listening carefully characterize the mode of their current educational effort.

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Kansas Focuses on Graduate Students

One of the most distinctive features of the University of Kansas Libraries' educational program is its intent to focus on graduate students as future "information generators". According to Vice Chancellor for Information Services and Dean of Libraries William Crowe, KU wants to get as "far upstream as [they] can in the scholarly information process." This process must start with faculty mentors of graduate students. Faculty offer ideas on the best ways to reach graduate students and they can provide class time in methods courses for presentations on scholarly communication issues. Of course, says Crowe, this is also an opportunity to draw in the faculty themselves.

The program is meant to be part of the culture of graduate education at Kansas, which views graduate students as whole persons with full careers in front of them, not merely as receivers of skills in specific disciplines. In the near future, these students will themselves be part of the scholarly communication system, publishing articles and books and serving on editorial boards. And though there may be few short-term advantages for the University of Kansas Libraries in focusing on graduate students, Crowe feels that taking the long view and advocating democratic values (e.g., open access to information) are important components in educating stakeholders about scholarly communication issues. At bottom is an appeal to a sense of responsibility that scholars must have about education and their role in the information transfer process.

The Libraries' liaison program is in transition, according to Crowe. The liaisons can no longer be merely the bearers of bad news about budget problems and cancellation projects. They must shift into the role of information resources and clarifiers of issues. In a sense, they are the advance guard, providing the background for library leaders like Crowe and others who take a more clearly advocacy approach with faculty. The goal is to spread information about scholarly communication as far as possible, and the message to the faculty is, "You are part of the solution toward which we must work." To that end, the Libraries are in the process of hiring an Assistant Dean for Scholarly Communication, whose responsibilities will be, in part, to help educate liaisons, train them in information-sharing skills, and promote their effective performance in this area.

Crowe feels that Kansas is in a good position to make a difference. The Libraries have good relations with faculty and the University is neither overlarge nor underfunded. However, Kansas is not a rich state. Thus, many of these strategies are self-protective: The University of Kansas simply cannot afford to acquire all the resources needed to provide adequately for their constituents on-site. So far, the Libraries' approach has been to work at the macro level, with presentations to groups. This will be followed by a micro-level approach with smaller groups and individuals. Crowe already sees faculty attitudes shifting, partially, he trusts, because of the Libraries' efforts, but also because of an uncommonly effective provost. Faculty today know there is a problem, they hate the problem because

there are no easy answers, but they are beginning to view it appropriately as *their* problem. This is the first step in a long-term educational process.

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The following three reports concern the role of use data in faculty education programs. Cornell's study of journal prices in agriculture and biology already has become a classic. MIT Director of Libraries Ann Wolpert describes that university's data-demanding culture. And Wisconsin's data on journal prices and usage have been used by other libraries in their educational efforts.

Cornell: A Leader in Data Collection and Analysis

Cornell University's Albert R. Mann Library is a long-time leader in a number of areas, among them preservation of core resources in agriculture. In November 1998, the Mann Library issued its *Journal Price Study: Core Agricultural and Biological Journals* (available at <http://jan.mannlib.cornell.edu/jps/jps.htm>), a study undertaken at the behest of a faculty task force concerned with the underlying causes of continuing journals price increases. The publication has already had a significant impact on the discussion of scholarly communication. The *Study* is a good example of data that were generated for a specific institutional purpose and now can be used by other institutions in their programs to educate faculty about scholarly communication.

The Cornell study considered 174 journals in the biological sciences and 222 journals in the agricultural sciences that are considered core in these disciplines. Eighty-four of the journals appear in both core lists, making the total number of journals studied 312. The two study years were 1988 and 1994. It is the careful methodology of the Cornell study that is impressive—from selection of the core titles (using faculty input) to the conclusions. Journals are compared with regard to subscription prices, cost per page, cost per 1,000 characters, *Science Citation Index* citations, and ISI impact factors. The inescapable conclusion of the study is that the average costs of the commercial publications in agriculture over these six years increased at a rate (77.8%) that far outstripped increases by other publication types (university, government, association, and society). And though commercial publishers of biological journals stayed within the modest 30–40% range of other publication types, the study concludes that much of the publication in both areas is controlled by "five to ten large houses with a heavy

concentration of important titles that are identified with Germany, the Netherlands, the United Kingdom, and to a lesser extent the United States."

The Study Task Force recommends three general strategies:

- Apprise faculty groups, professional societies, university administrators, and individuals of the data and stimulate discussion and actions through the publication of articles, presentations, inviting university faculties and administrators to reassess their relationships with journals, and discussions with journal publishers.
- Foster greater awareness among academics, including researchers, of the implications of publishing patterns and the costs to institutions and journal readers. Such awareness might lead to non-support of specific journals through seeking other publication venues or refusing editorial positions.
- Foster greater awareness of the imbalance of economics—especially on the total cost that universities currently pay for research information, from support of faculty during their research to the skyrocketing costs of the journals that are added to library collections.

Though Cornell is well known for this journal cost study, the Library has other activities related to electronic publishing underway, as well. Viewing electronic publication as one approach to dealing with the problems currently encountered in scholarly communication, an October 1998 report by the campus Electronic Publishing Steering Committee calls for a four-year build-up of technological and staff infrastructure to provide digital document support to the university community. Also called for is an electronic publishing center (EpiCenter) to conduct a number of pilot projects, including publication of research by Cornell faculty and of proceedings from conferences held at Cornell.

University Librarian Sarah Thomas reports that a librarian on staff has been appointed to focus on educating faculty about scholarly communication. A primary task is to develop a list of talking points, which will be tried out first in the Library and then used in meetings with deans and department chairs. Thomas is also enthusiastic about a new venture that focuses on mathematics. Having identified 57 Cornell faculty who serve on math journal editorial boards, the group will engage in discussions of new approaches within this scholarly context—for example, encouraging the use of Cornell as a site for the dissemination of research in math.

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MIT Faculty Value Data

There is little use in trying to persuade MIT faculty about scholarly communication issues by invoking traditional rhetoric (e.g., "the library is the heart of the university"): what they want to see are the data. "This is a

very distinctive aspect of working at MIT," says Director of Libraries Ann Wolpert. She sees the demand for data as a positive factor and has provided for this culture by developing a ready storehouse of data on costs and usage.

Data presentations have been quite imaginative and compelling. For example, the Libraries counted the publishing contributions of the MIT faculty, as reflected in commercial databases, to illustrate the amount of research material that the institution gives away and then buys back. They have estimated the aggregated number of hours MIT faculty must spend getting permissions from publishers to use their own works in the classroom. They have done a five-year projection of journal prices to illustrate the cost of avoiding the problem.

Wolpert feels fortunate in another characteristic of the MIT culture: It is a place where boundaries are pushed, especially in creative new uses of technology. MIT faculty are therefore generally quite open to electronic publishing and other models of information dissemination. Another fortunate circumstance is that innovation and impact have always been valued at MIT; the culture is one that focuses on where the faculty publish (a sign of quality) rather than on sheer quantity of publication. The key question is, "Is faculty work being published in the top-impact journals?" Thus the quantity/quality issue is not one that she has had to worry about in her educational efforts at MIT.

One lesson that Wolpert has learned, however, is to reframe the central questions. She says, "It's not about the cost of content. It's about how universities can regain sufficient control of their output so that they can continue their research and teaching missions." Wolpert has moved from a posture of asking for help with a library problem to one of pointing out a faculty problem and offering to help with it.

The most challenging scholarly communication issue at MIT, Wolpert feels, is the management of intellectual property rights. Currently, the Institute manages property rights very well on the invention side but has not yet stepped up to the responsibility of managing copyrightable intellectual rights.

In educating faculty, says Wolpert, one must remember that scholarly communication is a large, mature, and complex system. Overlaid on this complexity is the fact that different disciplines have different ways of managing scholarly communication; moreover, some disciplines are more "evolved" than others in scholarly communication practices. Understanding this new complexity is the job of every librarian if we are to be successful at educating the faculty.

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Wisconsin: A Data Pioneer

Kenneth Frazier, Director of the University of Wisconsin-Madison Libraries, is cautionary about the data that his library has mounted on the Web. "Users have to understand that they are raw data," he says. Nonetheless, several libraries check in regularly on the Wisconsin site as they seek support for decisions that they are making about scholarly journals. Frazier himself characterizes the data as "hugely influential" on his campus. For example, analysis of the data led in part to their putting a cap on expenditures for Elsevier journals.

Interestingly, the Libraries were initially reluctant to share their data widely, feeling that they were too raw. The faculty themselves asked that the data be made available to them "warts and all." They argued that, as researchers, they were used to working with raw data, and they needed the data to help the library make cancellation decisions.

The Wisconsin achievement is indeed impressive. Data are arranged in subject categories and provide title-by-title journal prices for the latest three years, along with percentage changes. One of the most useful pieces of information is, strictly, relevant only to the UW-Madison campus: the number of recorded uses each year for each title and the cost per use. Frazier cautions against applying these Wisconsin-specific data in any other context. Beyond these data, the Libraries maintain online lists of previous years' cancellations and of titles under current consideration for cancellation, including the cost-per-use data of such titles.

At first, says Frazier, the use of data was greeted with opposition: there was a strong concern that the data would dictate decisions about journal cancellations. Now, few can imagine not having the data on which to base their decisions. Confronted with the data, faculty and librarians find it much easier to hold the difficult discussions and make the difficult decisions about journal subscriptions. Frazier sees this as part of the evolution away from what he calls a "talismanic culture" in which the print journal is viewed as an emblem of quality and prestige—for some, merely possessing the journal is symbolically important and hard data challenge such assumptions. It is impossible to ignore the fact that a journal costing thousands of dollars has received very little use. The data provoke discussions of value, benefit, and trade-offs.

But data are not the only tools the Libraries use. Wisconsin's was one of the first faculty senates to pass a resolution asking faculty to be selective of the journals in which they publish—to choose responsible journals with acceptable pricing practices.

Frazier wants to move into new areas in the Libraries' educational efforts. Specifically, he believes that libraries need to shift toward marketing and advocacy modes. Such shifts demand the recruitment of professionals in areas like marketing and intensive training in effective advocacy.

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The next two reports focus on organizing to educate faculty about scholarly communication issues. North Carolina State University has established a Center for Scholarly Communication and hired an attorney to be its first scholarly communication librarian. The University of Washington has recently appointed a half-time scholarly communication librarian from among its own ranks.

NCSU Educates and Advises through its Scholarly Communication Center

The North Carolina State University Libraries have focused intensively on scholarly communication issues since 1992, when the University Library Committee established a Scholarly Communication Subcommittee comprised of faculty, librarians, administrators, and students. One of the Subcommittee's goals was to move away from the focus on serial prices toward a host of issues bundled together under the scholarly communication umbrella. Several factors, including a dedicated cadre of leaders on the Subcommittee and the adoption of a faculty senate resolution endorsing the need to increase faculty awareness of copyright and scholarly publication issues, led to the establishment of the Scholarly Communication Center (SCC). The Center, which opened in January 1998, is now staffed with a scholarly communication librarian and an assistant. These positions were created with existing resources to demonstrate the broader vision of the Libraries. Moreover, the Center was deliberately envisioned as an educational service, not just a resource for copyright questions (though it does handle these).

Development of a job description for the scholarly communication librarian took NCSU in an interesting direction: they decided to hire an attorney with an appreciation of library issues. Fundamental in this decision was the assumption that it would be easier to bring an attorney up to speed in library matters than to ask a librarian to learn intellectual property law. Since taking the job in early 1998, Peggy Hoon has been able to field many questions about scholarly communication issues, a contribution much valued by the university's Legal Affairs staff. She is careful, however, not to provide the sort of legal advice that is the province of University Counsel.

Housed in the Libraries' Learning and Research Center for the Digital Age, the SCC serves as a campus resource on issues related to scholarly publishing, intellectual property, and copyright. Hoon conducts educational sessions for faculty, students, and librarians (e.g., through workshops targeted for research administrators, cooperative extension agents, and archivists). She assists the Libraries in policy development, as appropriate (for instance, for electronic reserves). Hoon also plays a key role in representing, on behalf of the library director, the NCSU Libraries' interests with respect to pending intellectual property legislation.

Jinnie Davis, Assistant Director for Planning and Research, and Hoon speak of lessons learned during the past seven years. First, the library system, with its tradition of advocacy for user services and its established role in the scholarly communication process, is the appropriate organizational unit in which to base a scholarly communication center. Second, the success of such a center is possible only with firm support from the top levels of university and library administration.

NCSU has been a leader in bringing scholarly communication issues to broader venues, namely the University of North Carolina System and the Triangle Research Libraries Network, both of which have new programs in this area.

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Washington Taps Gould as Scholarly Communications Librarian

One of the growing trends in academic research libraries is the appointment of an individual to coordinate the library's scholarly communication program. After a distinguished career as the University of Washington Libraries' Chief Collections Officer, Linda Gould recently moved to a half-time position as Scholarly Communications Librarian. Gould's enthusiasm for this new challenge was palpable in our telephone interview.

Gould's new assignment has the following components, summarized from a draft position description:

- To advance a campus-wide understanding of the components and complexities of the scholarly communications process.
- To explain interrelationships between UW stakeholders and to encourage discussions within and between stakeholder groups.
- To promote widespread awareness of trends and developments at various stages within the process.
- To bring to the attention of members of the university community the issues and challenges which may affect their role in the process.
- To foster an understanding of the changing library role in leading and in responding to changes within the process.
- To encourage the faculty to become more engaged in shaping the future of scholarly communication and in supporting the creation of an environment that will lead to success.
- To assist library staff in interpreting for their constituencies the changing nature of how scholarly information is produced and disseminated, especially as such changes affect library operations and services.

Actually, Gould and the Libraries have been in the business of educating faculty about scholarly communication for several years. A key event occurred in 1993, when the faculty senate passed a resolution giving

faculty guidance on journal cancellation decisions—specifically to pay attention to low usage, high costs, and alternative availability in electronic formats. Every cancellation project at the university, according to Gould, has had an educational component built in, including lists of titles made widely available on the Web, clear background information, opportunities for feedback from faculty, and quick response to all feedback. One of Gould's goals is to broaden the sphere of concern, however, from cancellation to scholarly communication, especially by sharing alternative models for the management and dissemination of scholarly information.

Making data collection more widespread and consistent is another of Gould's goals. At this point, several University of Washington libraries are gathering use data regularly, but it is not done in a consistent manner library-wide. One data-based educational strategy will be tested in an upcoming cancellation project: each selector will be provided with a "tool kit" to help them collect and interpret data for the faculty. Gould believes in adapting the data that others have collected, citing the data available from Cornell and Wisconsin as especially useful in their work with faculty.

To prepare herself for her new position, Gould has been holding sessions with library selectors, asking them what works and what does not work in their own efforts to educate faculty about scholarly communication issues. In this way, she learns from them and they learn from each other.

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Finally, reports from Washington University and the University of Nebraska-Lincoln focus on a variety of approaches to educating faculty.

Washington University Adjusts Strategies to a Changing Environment

During the last several years, B. J. Johnston has noticed a definite evolution in the attitudes of faculty at Washington University in St. Louis. He cites three notable stages:

1. The Libraries are at fault: You (the Libraries) do not manage very well; you run out of money and have to cancel journals. If you follow our (faculty) ideas, you will get through this.
2. The University is at fault: It fails to support the Libraries adequately. We will help you get more money from the University so you can continue all the subscriptions.

3. Something is wrong with the whole culture and economy of scholarly communication. We need to help by influencing our associations and changing our behaviors.

In such an evolving climate, educational efforts have moved from the simplistic (exclusive focus on the general issue of escalating journal prices) to a much more complex approach involving advocacy. One key lesson has been learned: outside of the health sciences library, collecting use data is overwhelmingly labor-intensive and the data do not seem to impress the faculty. What does impress them these days are data about publisher profits and individual title price increases. There is also a growing sophistication in the Libraries, where subject librarians have begun to speak of themselves as "educators."

In their educational efforts, says Johnston, the Libraries have targeted the sciences—because there are so many more dollars involved—and journal editors. He especially likes working with the editors, who tend to have a more sophisticated knowledge about the economics of scholarly communication and to see the issues within their spheres of influence.

Even within this increasingly sophisticated environment, Johnston still encounters a certain amount of naivete. For example, questions focusing on University administration support for journal collections tend to ignore the enormous power and influence held by the deans and schools in deciding how University money is spent. And some humanists persist in characterizing the issue as "a science problem." In such a changing culture, Johnston finds that working with faculty one-on-one is the best strategy—a much more effective venue for exploring issues and potential changes.

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Nebraska Engages Faculty through University-Wide Programs

Joan Giesecke, Dean of Libraries at the University of Nebraska-Lincoln, believes that annual convocations offered by the Libraries since 1995, in partnership with the Nebraska University Press and the Vice Chancellor for Academic Affairs, have had a positive effect on faculty education about scholarly information issues. As one measure of success, she reports that faculty have stopped blaming the Libraries for cancellations and are inclined to see the current problems—such as cost increases and cancellations—as scholarly communication problems, rather than library problems.

Each annual program is a day long, with the morning devoted to content of general interest to faculty and the afternoon more specifically thematic and targeted for specific audiences. Each program involves invited guests (e.g., Ann Okerson, Mary Case, Kenny Crewes, David Shulenburger). Giesecke feels that the annual event has kept the scholarly communication issues in the forefront of faculty consciousness. Though consciousness has been raised effectively through this strategy, Giesecke

still finds some difficult questions reflected back to her when she talks with faculty. The most difficult question focuses on what many see as a problematic transition: "Surely you can't expect us to go first? Our graduates need to play the system's games in order to get jobs."

Each year, the Libraries update their list of journal editors and sends them briefing packets. One key message is that they need to bring scholarly communication issues to their scholarly associations. In fact, this has resulted in success: at least one association journal has been brought back to the United States from Europe as a result of a Nebraska editor.

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Conclusion
Getting Organized

Identifying and Answering the Difficult Questions

Educating faculty about scholarly communication, for most libraries, has the goal of helping to bring about critical changes in the scholarly communication system. These changes are not easy; in fact, they often run counter to the prevailing culture. Many faculty are quick to ask the tough questions. Here are some of the most frequently heard:

- *What do you want me to do?* Though they might be persuaded that the problems are serious and systemic, faculty need some ideas for action. Alternative models, such as those offered by Shulenburger and Phelps, offer a starting point for discussion. Possible strategies are to recommend that they work through their professional societies, that they raise the issues in editorial board meetings, and that they support appropriate campus resolutions.
- *Why can't publishers and librarians just get along?* Of course, many do get along, but the question sidesteps some of the real issues (e.g., ownership of intellectual property) and it suggests that the problem is a library/publisher problem, not a scholarly communication problem.
- *It's not our problem; why are we being penalized?* Often humanists, social scientists, and area studies faculty will note that their journals are not the problem—it's the science and technology journals. In a real sense, this question is understandable. The answer might be that everyone in the university community deserves access to the resources that they need and everyone needs to participate in resolving the problems.
- *Won't all information soon be available electronically anyway?* Even if this were the case, electronic information is not cheap and it is not ultimately the solution to the problems facing universities.
- *Why won't the university give you the resources you need to buy the journals we need?* Many universities have been quite supportive, but chronic double-digit inflation simply cannot be accommodated by most institutions.
- *Why should I/we be the first?* This is a particularly tough question,

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especially when career security is at stake. One strategy might be to recommend incremental steps, as well as working collectively through scholarly societies, thus minimizing personal risk.

- *The system has worked well for us; why should we change now?* Again, the long-range assessment is that the system will not continue to work well, that universities will lose more and more of their collective intellectual product as time goes by.

Assessing the Faculty Education Program

The following checklist is intended to help readers assess their own faculty education programs, using the best practices of the interviewed ARL libraries as a framework.

- **Have you done an assessment of your campus culture?** What are the primary characteristics of the culture that might affect an educational program? Do faculty regularly attend convocations? Is the senate a powerful force on the campus? Do faculty typically want data? Do they prefer more philosophical discussions of the issues?
- **Have you identified your long-range and short-range goals?** Do you want to provide information that will engage faculty attention? Do you want to advocate certain kinds of changes? Do you want to stimulate discussion?
- **Are you effectively organized?** Do you have a person or persons assigned to lead the educational effort, such as a scholarly communications librarian? Do subject librarians and liaisons have clear performance expectations about educating faculty about scholarly communication issues?
- **Do staff need further training?** Do you have enough in-house expertise in areas such as intellectual property? Do staff feel comfortable in their roles as information providers, advocates?
- **Have you exploited the appropriate segmentation strategies on your campus?** Have you focused on journal editors, senior faculty, junior faculty, graduate students, or specific disciplines?
- **Are you gathering and making use of use data?** Are you able to back up your educational efforts with objective data on costs, cost increases, profits, cost per use, cost per 1,000 characters—or other persuasive measures?
- **Have you identified the difficult questions that faculty are likely to ask?** Have you conducted focus group sessions or other activities that will help you assess what the difficult questions are likely to be? Are you prepared to answer these questions?

Educating faculty about scholarly communication issues is a relatively new activity for many libraries, one that moves well beyond the classic discussions of the 1980s that focused on journal prices and cancellations. It is hoped that this issue of Transforming Libraries will stimulate libraries to develop their own programs and to help effect changes in the scholarly communication system that will greatly benefit all members of the scholarly enterprise.

Selected Resources

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E. Selected Documents from Institutions Interviewed

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Cornell University

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Indiana University

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North Carolina State University

Copyright Ownership Task Force website. <http://www.ncsu.edu/provost/governance/task_forces/COTF/>.

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